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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,219	11/09/2001	James B. Goddard	AES 107 P2	5658

7590 10/02/2002

Finnegan, Henderson, Farabow,
Garrett & Dunner, L. L. P.
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Washington, DC 20005-3315

EXAMINER

COLLINS, GIOVANNA M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,219

Applicant(s)

GODDARD ET AL. 

Examiner

Giovanna M. Collins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it is longer than 150 words.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

Claims 6, 10 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 6 and 16, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 10 recites the limitation "the third and intermediate corrugations" in line 2. There is insufficient antecedent basis for "intermediate corrugation" in the claim.

Claim Rejections - 35 USC § 102

1. Claims 8-9,11 are rejected under 35 U.S.C. 102(b) as being anticipated by Goddard ('209).

Goddard discloses (see fig. 2) connection between two sections of corrugated pipe, said pipe having a plurality of first corrugations (22), each of said first corrugations having a crest and a valley with the distance between the crest and valley of said first corrugations being a first distance, said connection comprising a male portion (18) integrally molded to one of said sections and a female portion (20) integrally molded to the other of said sections, said male portion having at least one second corrugation (32), each said second corrugation having a crest and valley with the distance between the crest and valley of said second corrugation being a second distance, said male portion also having at least one third corrugation (42), each said third corrugation having a crest and valley with the distance between the crest and valley of said third corrugation being a third distance, said crest of said third corrugation having a recessed area (55), said second distance and said third distance each being less than said first distance, said female portion being of a length which is greater than that associated with two corrugations, said pipe having a gasket (60) in the recess, said pipe being water-tight.

Referring to claim 9, Goddard discloses wherein the said two corrugations are the second and third corrugations (32,42).

Referring to claim 11, Goddard discloses wherein said female portion has at least one corrugation (72) thereon, and a pair of guide lines (at 80).

Claim Rejections - 35 USC § 103

2. Claims 1-2, 5-7, 12, 15-23, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goddard ('209) in view of Justice ('972).

Goddard discloses (see Fig. 2) an indeterminate length of pipe comprised of at least two corrugated sections of pipe joined by a coupler component, said coupler component having a male portion (18) and a female portion (20) to connect two of the corrugated sections, each corrugated section having a plurality of first corrugations (22), each of said first corrugations having a crest and a valley with the distance between the crest and valley of said first corrugations being a first distance, said male portion of each corrugated section having at least one second corrugation (32), each said second corrugation having a crest and valley with the distance between the crest and valley of said second corrugation being a second distance, said male portion of each corrugated section having at least one third corrugation (42), each said third corrugation having a crest and valley with the distance between the crest and valley of said third corrugation being a third distance, said crest of said third corrugation having a recessed area (55), said recessed area accommodating a sealing element (60), with said sealing element being retained between said recessed area and said female portion, said second distance and said third distance each being less than said first distance, said female portion telescopically receives said third corrugation and at least a portion of said second corrugation. Goddard does not disclose that the female portion having a reinforcing means on a segment of the exterior surface of said female portion. Justice teaches (see Fig. 7) a pipe with a reinforcing means (34) on an exterior surface. Justice teaches that the reinforcing means holds the sections in position (see col. 5, lines 15-19).

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Therefore it would be obvious to one skilled in the art at the time of the invention to modify the pipe disclosed by Goddard to include the reinforcing means taught by Justice to keep the pipe sections in position.

Referring to claim 2, Goddard discloses wherein said pipe (12) is dual-wall.

Referring to claim 5, Goddard discloses wherein said female portion wall member telescopically receives all of both said second corrugation (32) and said third corrugation (42).

Referring to claim 6, Justice teaches wherein a reinforcing means (34) is comprised of a selection from a group comprising tape, an adhesive layer, and a suitable coating, such as plastic, and a selection from a group comprising fiberglass, metal, carbon fibers, and plastic fibers (see col. 3, lines 1-2 and col. 5, lines 15-17).

Referring to claim 7, Goddard discloses wherein said pipe (12) is water-tight.

Referring to claim 12, Goddard discloses an indeterminate length of dual-wall plastic pipe comprised of at least two corrugated sections of pipe joined by a coupler component, said coupler component having a male portion (18) and a female portion (20) to connect said at least two corrugated sections, each corrugated section having a plurality of first corrugations (22), each of said first corrugations having a crest and a valley with the distance between the crest and valley of said first corrugations being a first distance, said male portion of each corrugated section having a single second corrugation (32), each said second corrugation having a crest and valley with the distance between the crest and valley of said second corrugation being a second distance, said male portion of each corrugated section having a single third corrugation (42), each said third corrugation having a crest and valley with the distance between the crest and valley of said third corrugation being a third distance, said female portion wall member

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telescopically receiving said third corrugation and at least a portion of said second corrugation, said crest of said third corrugation having a recessed area (55), said recessed area accommodating a sealing element (60), with said sealing element being retained between said recessed area and said female portion, said second distance and said third distance each being less than said first distance. Goddard does not disclose that the female portion has a reinforcing means on a segment of the exterior surface of said female portion. Justice teaches (see Fig. 7) a pipe with a reinforcing means (34) on an exterior surface. Justice teaches that the reinforcing means holds the sections in position (see col. 5, lines 15-19). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the pipe disclosed by Goddard to include the reinforcing means taught by Justice to keep the pipe sections in position.

Referring to claim 15, Goddard discloses wherein said female portion wall member telescopically receives all of both said second corrugation (32) and said third corrugation (42).

Referring to claim 16, Justice wherein a reinforcing means (34) is comprised of a selection from a group comprising tape, an adhesive layer, and a suitable coating, such as plastic, and a selection from a group comprising fiberglass, metal, carbon fibers, and plastic fibers (see col. 3, lines 1-2 and col. 5, lines 15-17).

Referring to claim 17, Goddard discloses wherein said pipe (12) is water-tight.

Referring to claim 18, Goddard discloses in a corrugated pipe comprising two sections joined by telescopically mating a male end of one section with a female end of the other section, the improvement comprising an annular sealing element (60) fixed to the exterior surface of the male end and disposed to sealingly engage the interior surface of the female end; Goddard does not disclose an annular band of reinforcing material disposed around the exterior surface of the

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female end at a position along the longitudinal axis thereof that is in general alignment with the sealing element. Justice teaches (see Fig. 7) a pipe with an annular band (34) on an exterior surface. Justice teaches that the annular holds the sections in position (see col. 5, lines 15-19). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the pipe disclosed by Goddard to include the reinforcing means taught by Justice to keep the pipe sections in position.

Referring to claim 19, Goddard discloses wherein the annular sealing element (60) is disposed in an annular channel in the outer surface of the male end.

Referring to claim 20, Goddard discloses wherein each section includes opposed male and female ends (18,20) and the outside pipe diameter of each section between its respective male and female ends is substantially the same.

Referring to claim 21, Goddard discloses wherein the outside diameter of the female end (20) of each section is substantially the same as the outside pipe diameter.

Referring to claim 22, Goddard discloses wherein the male end includes at least two corrugations (32,42) comprising at least two axially spaced, annular crests and an annular valley therebetween, the two crests defining the outside diameter of the male end, and wherein the annular channel (55) is formed in one of the crests.

Referring to claim 23, Goddard discloses wherein the outside diameter of the male end (18) is selected to permit mating and sealing engagement with the female end (20).

Referring to claim 26, Goddard discloses a corrugated pipe comprising two sections joined by telescopically mating a male end of one section with a female end of the other section, wherein the diameter of the female end (20) is substantially the same as the diameter of the

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corrugated pipe; and the male end (18) includes a corrugation having a recessed area (55) for accommodating an annular sealing element (60) for sealingly engaging an interior surface of the female end; and the corrugation height is such that the corrugation and the annular sealing element can be accommodated in the female end; the corrugated pipe section further comprising Goddard does not disclose an annular band of reinforcing material disposed around the exterior surface of the female end. Justice teaches (see Fig. 7) a pipe with an annular band (34) on an exterior surface. Justice teaches that the annular band holds the sections in position (see col. 5, lines 15-19). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the pipe disclosed by Goddard to include the reinforcing means taught by Justice to keep the pipe sections in position.

Referring to claim 27, Goddard discloses wherein the male end also includes a second corrugation (32) that can be accommodated in the female end.

Referring to claim 28, Goddard discloses wherein the female end (20) includes a distal end into which the male end is inserted, and a third corrugation (42) with a crest that extends radially outwardly at least as far as the distal end of the female end.

Referring to claim 29, Goddard discloses a corrugated pipe for accommodating fluid flow, the pipe consisting of a material that deforms in response to internal water pressure and including two sections joined by telescopically mating a male end of one section with a female end of the other section, the improvement comprising an annular sealing element (60) fixed to the exterior surface of the male end and disposed to sealingly engage the interior surface of the female end. Goddard does not disclose an annular reinforcement disposed around the exterior surface of the female end, the annular reinforcement having a width that is greater than the width

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of the sealing element and is disposed substantially upstream from the sealing element to resist loss of sealing engagement between the female end and the sealing element during use of the pipe. Justice teaches (see Fig. 7) a pipe with an annular reinforcement (34) on an exterior surface. Justice teaches that the annular reinforcement holds the sections in position (see col. 5, lines 15-19). Therefore it would be obvious to one skilled in the art at the time of the invention to modify the pipe disclosed by Goddard to include the reinforcing means taught by Justice to keep the pipe sections in position.

3. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goddard (209) in view of Justice ('972) as applied to claims 1, 12 and above, and further in view of European Patent EP595742 to Courant.

Goddard, as modified, discloses the pipe of claim 1. Goddard does not disclose a fourth corrugation. Courant teaches (see Fig. 6) a pipe which includes a fourth corrugation (18), the fourth corrugation having a crest and a valley, with the distance between the crest and valley of the fourth corrugation being a fourth distance, with the fourth distance being greater than a first distance. Moreover, duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Therefore it would be obvious for one skilled in the art at the time of the invention to further modify the pipe disclosed by Goddard to have a fourth corrugation as taught by Courant because a change in the size of duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Referring to claim 13, Goddard, as modified, discloses the pipe of claim 12. Goddard does not disclose a fourth corrugation. Courant teaches a pipe which includes a fourth corrugation (18), the fourth corrugation having a crest and a valley, with the distance between the crest and valley of the fourth corrugation being a fourth distance, with the fourth distance being greater than a first distance. Moreover, duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Therefore it would be obvious for one skilled in the art at the time of the invention to further modify the pipe disclosed by Goddard to have a fourth corrugation as taught by Courant because a change in the size of duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goddard (209) in view of Kallenbach ('051).

Goddard discloses the connection according to claim 8 but does not disclose an intermediate corrugation. Kallenbach teaches (see Fig. 1) an intermediate corrugation (7). Moreover, duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Therefore it would be obvious for one skilled in the art at the time of the invention to modify the pipe disclosed by Goddard to have an intermediate corrugation as taught by Kallenbach because a change in the size of duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

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5. Claims 4, 14, 24, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goddard ('209) in view of Justice ('972) as applied to claims 1,12 and 22 above, and further in view of Kallenbach ('051).

Goddard, as modified, discloses the pipe according to claim 1 but does not disclose an intermediate corrugation. Kallenbach teach (see Fig. 1) an intermediate corrugation (7) located between a second and third corrugations, the intermediate corrugation having a crest and a valley, with the distance between the crest and valley of the intermediate corrugation being an intermediate distance, with the intermediate distance being greater than a third distance and less than a second distance. Moreover, duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Therefore it would be obvious for one skilled in the art at the time of the invention to further modify the pipe disclosed by Goddard to have an intermediate corrugation as taught by Kallenbach because a change in the size of duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Referring to claim 14, Goddard, as modified, discloses the connection according to claim 12 but does not disclose an intermediate corrugation. . Kallenbach teach (see Fig. 1) an intermediate corrugation (7) located between a second and third corrugations, the intermediate corrugation having a crest and a valley, with the distance between the crest and valley of the intermediate corrugation being an intermediate distance, with the intermediate distance being greater than a third distance and less than a second distance. Moreover, duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza,

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274 F.2d 669, 124 USPQ 378 (CCPA 1960). Therefore it would be obvious for one skilled in the art at the time of the invention to further modify the pipe disclosed by Goddard to have an intermediate corrugation as taught by Kallenbach because a change in the size of duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Referring to claim 24, Goddard, as modified, discloses the connection according to claim 22 but does not disclose an intermediate corrugation. Kallenbach teaches (see Fig. 1) an annular intermediate corrugation (7) adjacent the male end defining an outside diameter greater than the outside diameter of the male end, the intermediate corrugation being disposed to engage the distal end of the female end when fully mated. Moreover, duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Therefore it would be obvious for one skilled in the art at the time of the invention to further modify the pipe disclosed by Goddard to have an intermediate corrugation as taught by Kallenbach because a change in the size of duplicating the components of a prior art device is a design consideration within the skill of the art. In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960).

Referring to claim 25, Kallenbach teaches the outside diameter of the intermediate corrugation (7) is less than the outside pipe diameter.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 703-306-5707. The examiner can normally be reached on 7:30-4 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

gmc
September 26, 2002


Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3670